CLAIMS

1. A channel tuning apparatus, comprising:

a tuner for tuning to any of channels that broadcast digital signals in multiple system modes and receiving the digital signals;

input means for selecting a specific channel for said tuner to tune to;

demodulation means for amplifying, detecting, demodulating, and converting the received signals coming from said tuner;

detection means for detecting receive data in the output signals of said demodulation means to determine the system mode and frequency mode of the channel tuned by said tuner; and

memory means for storing mode data detected by said detection means, based on the channel selection by said input means,

wherein

the channel tuning apparatus is configured to, before performing automatic channel tuning with respect to said broadcast, make said tuner tune to said specific channel determined by said input means, make said detection means detect the system mode of said specific channel and a shift in the received frequency on said specific channel, and store them in said memory means, and

the channel tuning apparatus is configured to, when digital signals are received by said tuner in said automatic

channel tuning, use the stored data as initial data for said automatic channel tuning to tune to and pull in said digital signals.

2. The channel tuning apparatus according to claim 1, wherein:

before performing the automatic channel tuning, it is determined whether or not signals are present on the specific channel selected by the input means; and

if it is determined that signals are present, an effective range of the received frequency of the received system mode is searched in sequence, and any frequency shift is detected and stored for use as initial data in said automatic channel tuning; and

if it is determined that no signal is present, a frequency shift on a first signal-carrying channel found after starting said automatic channel tuning is detected and stored for use as initial data in said automatic channel tuning.

3. The channel tuning apparatus according to claim 1, wherein said channel tuning apparatus is configured to, before performing automatic channel tuning, sequentially search an effective range of the received frequency for the system mode of the channel detected by the detection means by adding some margin to the range, detect and store the frequency shift of each retrieved signal with respect to a center frequency, and use the stored information as initial data in said automatic channel tuning.